

in diameter, was at last dug, and in it about half a dozen white eggs were laid. Then the process of covering up the pit began.

I expected a simple filling up. What happened surprised me.

With one of its fore limbs, the lizard pushed a little earth into the pit and then began to press down the soil with its snout. A most laborious process! After a few dabs with the snout the animal rested a while, and then resumed the task. All round and in the interspaces between the eggs it pressed in mud. Then more soil were scratched into the pit and the process of beating it down repeated. In this way, the pit was completely filled. But the process did not end there. It was hard laterite soil with a lot of gravel and pebbles on the surface, where some weeds (*Centella asiatica*) had rooted. In beginning the excavation, the lizard had removed the surface gravel and pebbles and uprooted the weeds. Now, when the covering up process was completed, the weeds were replaced, pressed in by the snout and then the gravel and the pebbles re-spread. When the mother left the spot it was indistinguishable from the area around. I found it extremely difficult to locate and had to dig up in several places. Her 'forethought' for her brood consisted thus of:—1. filling in the pit so perfectly that it was as hard as the soil all around. A few hours after there was a shower of rain but the recently filled up pit did not suffer. 2. The lizard re-made the surface just as it was before, arranging the gravel, pebbles and weeds in position, betraying no signs of any recent excavation and subsequent filling up.

Though it is well known that lizards and most reptiles bury their eggs in the soil for hatching, I have not come across any account of such care taken by the mother in filling up the pit and camouflaging its surface, though certain turtles are known to behave in a similar manner.

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10.—CROCODILES BELLOWING.

Until recently I had always imagined the mugger to be a silent brute. He never speaks to shot like some warm-blooded animals, nor of course, like the lion, does he go roaring after his prey. In one of Blackwood's tales (March 1938), Ostler however mentions that in Africa he had heard a crocodile utter a hoarse roar when shot and that adults are said to bellow at nights; but *C. vulgaris* of Africa is on the whole a larger beast than his cousin *C. palustris* of the Indian tank and river and may have acquired this vocal distinction as a result of different conditions of living and environment.

I was walking up the left bank of the River Indravati, one afternoon in February on the off chance of getting a shot at a mugger. My orderly was following some 25 yards behind carrying my '30 Springfield Mauser.

Having sighted a very young one some 3 feet in length sitting on a log in the water, I approached quietly to see how near I could get before he slid in. The log was opposite a shelving part of the otherwise steep bank where I had some weeks before seen a mugger sunning itself.

While the shelving part was still obscured from view by the grassy top of the bank, I heard what I imagined to be a water buffalo or bullock lowing, as they very often do, while coming out of water after drinking. The lowing bellows were repeated two or three times in quick succession, and my first reaction was to discard further caution in approach and to continue on up the river.

As I started however I caught sight through the grass of a massive crocodile, his mouth wide open waddling up the bank out of the water. Close to him was another 7-footer already lying in the sun.

I slipped back to where the orderly was standing, took the rifle and returned *à la cobra* to the top of the bank. The two muggers were lying side by side, neither was moving and baby was watching from the log. I did not wait to see whether the big one's bellow was an invitation to waltz or a request to the smaller one to move on, but put a bullet into his neck immediately.

The bullet appeared to have broken the neck thus preventing all motive power from the brain reaching the body. The latter was in fact dead though the head was certainly alive. He taped 12 feet 4 inches, girth 5 feet 3 inches, and took twelve men and boys to lift. His belly contained three pieces of a silver ornament and some broken iron fish hooks. This particular saurian was reported to have pulled in a full grown buffalo in December and was not itself seen again for some days afterwards.

It would be interesting to know the significance of the bellowing at 3.30 p. m. in the afternoon and whether a similar instance has been previously recorded.

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Major, I. P. S.

II.—THE ZONAL DISTRIBUTION OF THE MOLE CRAB (*EMERITA ASIATICA*) ON THE MADRAS COAST.

The Anomuran decapod, *Emerita asiatica*, is one of the most abundantly represented species in the inter-tidal zone of the Madras Coast.¹ The species is of common occurrence at various places along

¹ *Emerita asiatica* occurs in large numbers along the Malabar Coast, particularly at Cochin and Cranganore; but here besides the typical specimens a variety of rather stunted or dwarfish individuals also occurs. This variety is easily distinguished from the *forma typica* by the peculiar pigmentation on the dorsal aspect of the cephalothorax. While it is of a uniform colour in the typical specimens, the cephalothorax in variety bears a distinct pattern—on a brown background, a longitudinal median white streak which is less conspicuous